

Claims

1. A hand power tool which is driven via an electric
5 motor (20), the electric motor (20) having a commutator (28)
that is formed of disklike annular segments or laminations
(32), characterized in that its laminations (32) have at
least one central recess (42, 44, 46) and form a perforated
disk.

10 2. The hand power tool according to claim 1,
characterized in that the recess (42) is elongated.

15 3. The hand power tool according to claim 2,
characterized in that the recess (42) is designed as a
punched recess with a closed, thin remaining wall.

20 4. The hand power tool according to claim 2,
characterized in that the recess (42) is embodied as a
continuous opening.

25 5. The hand power tool according to claim 1,
characterized in that the recess (44, 46) passes in aligned
fashion through two diametrically opposed flat sides of the
lamination (32).

6. The hand power tool according to claim 1,
characterized in that the recess (42, 44, 46) is oval.

30 7. The hand power tool according to claim 1,
characterized in that the lamination (32) has peripheral
recesses (48), next to the central recess (42), which give
the ends of the periphery a trapezoidal contour and thus give
the lamination (32) an anvil-shaped contour.

8. The hand power tool according to claim 1,
characterized in that the regions of a lamination (32) above
the recess (42, 44, 46) are designed such that at operating
5 rpm and operating temperature they deform in such a way that
the face to be electrically contacted with the carbon brushes
(30) essentially forms a plane.

9. The hand power tool according to claim 1,
10 characterized in that the outer ends of the laminations (32)
act as a fan and put a flow of cooling air through the
laminations (32) into motion.

10. The hand power tool according to claim 1,
15 characterized in that a flow of cooling air is passed through
the recesses (42, 44, 46).

11. The hand power tool according to claim 1,
characterized in that an annular armature (40) which in
20 particular can be prestressed reaches through the central
recess (42) and/or the peripheral recess (48).

12. The hand power tool according to claim 1,
characterized in that the composite structure of the
25 lamination packet that forms the commutator (28) is
stabilized by one tubular-stub-like everted feature each on
one side of each lamination (32) in the region of the central
recess (42), which protrudes into the central recess (42) on
the other side of each adjacent lamination (32), and
30 insulating material (34) is located between them.